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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,531	09/15/2003	Hiroshi Watanabe	392.1818	8022
21171	7590	09/23/2005	EXAMINER	
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			MACKEY, JAMES P	
		ART UNIT	PAPER NUMBER	
		1722		

DATE MAILED: 09/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/661,531	WATANABE, HIROSHI
	Examiner	Art Unit
	James Mackey	1722

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on ____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) Claim(s) ____ is/are allowed.
- 6) Claim(s) 1-16 is/are rejected.
- 7) Claim(s) ____ is/are objected to.
- 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on ____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. ____.
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>9/15/03; 2/2/04; 2/14/05</u>	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: ____.

Art Unit: 1722

1. Claims 2, 5, 6 and 8-16 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Each of claims 2, 5, 6 and 8-16 merely recite the manner in which the claimed apparatus is intended to be utilized, and do not recite additional structure of the claimed apparatus; therefore, the claims do not further limit the subject matter of the apparatus claims. Note that intended use has been continuously held not to be germane to determining the patentability of the apparatus, *In re Finsterwalder*, 168 USPQ 530; the manner or method in which a machine is to be utilized is not germane to the issue of patentability of the machine itself, *In re Casey*, 152 USPQ 235.

2. Claim10 is objected to because of the following informalities: on line 2 of claim 10, “load of mold clamping servomotor” should be --load of the mold clamping servomotor-- for clarity. Appropriate correction is required.

3. Applicant is advised that should claim 3 be found allowable, claim4 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 2, 5, 6 and 8-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 2, 5, 6 and 8-16 are indefinite as to exactly what structure of the claimed injection molding machine is intended to be claimed, since each of these claims only sets forth recitations regarding the manner in which the claimed machine is to be utilized during the intended operation. The additional structural elements (if any) of the claimed machine should be clearly recited in the dependent claims.

Claim 10 is unclear as to exactly what is intended by “when the mold clamping force is unclamped” (it is not seen how a force may be considered to be “unclamped” as claimed).

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 1, 2 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Eggenberger et al. (U.S. Patent 3,642,405) or Speck et al. (U.S. Patent 4,832,884).

Eggenberger et al. and Speck et al. each disclose the injection molding machine substantially as claimed, comprising a toggle clamping apparatus between a movable platen and a rear platen, and mold clamping force adjusting means which adjusts a position of the rear platen according to a difference between a measured mold clamping force and a predetermined reference (i.e., set point) mold clamping force, except for the toggle clamping apparatus being actuated by a servomotor. However, pressure cylinder actuators and servomotor actuators are notoriously well known equivalents for toggle clamping apparatus, and it would have been obvious to one of ordinary skill in the art at the time of the invention to modify either Eggenberger et al. or Speck et al. by providing the toggle clamping mechanism with such a notoriously well known equivalent servomotor actuator for the same purpose of extending and retracting the toggle clamping mechanism to close and open the mold. Note that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations, *Ex parte Masham*, 2 USPQ2d 1647.

9. Claims 3-12 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Eggenberger et al. (U.S. Patent 3,642,405) or Speck et al. (U.S. Patent 4,832,884), in view of any one of Onishi (U.S. Patent 6,413,453; col. 3, line 39 through col. 4, line 4), Hiraoka (U.S. Patent 5,912,025; col. 3, lines 40-45), Siegrist et al. (U.S. Patent 5,792,483; Figure 16; col. 20, lines 32-37) and Silvey (U.S. Patent 5,469,038; col. 5, lines 52-61).

Eggenberger et al. and Speck et al. each disclose an injection molding machine comprising a toggle clamping apparatus between a movable platen and a rear platen, and mold clamping force adjusting means which adjusts a position of the rear platen according to a

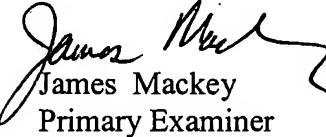
difference between a measured mold clamping force and a predetermined reference (i.e., set point) mold clamping force, except for the adjusting means being responsive to a difference between a measured load of a mold clamping servomotor and a predetermined reference (i.e., set point) servomotor load. (claims 3, 4 and 7) Each of Onishi (note current detector 40 for servomotor 18), Hiraoka, Siegrist et al. and Silvey discloses an injection molding machine comprising a toggle clamping apparatus driven by a mold clamping servomotor actuator, and further discloses the correlation between clamping force and the servomotor current load. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify either Eggenberger et al. or Speck et al. by providing the mold clamping force adjusting means as being responsive to the measured load of a mold clamping servomotor actuator for the toggle clamping apparatus, since a skilled artisan would have recognized the correlation between mold clamping force and servomotor load, as evidenced by any one of Onishi, Hiraoka, Siegrist et al. and Silvey. Moreover, to the extent that the manner of operating the injection molding machine as recited in claims 2, 5, 6, 8-12 and 14-16 further define any structure of the claimed apparatus, such would have been obvious to a skilled artisan and well within the level of ordinary skill in the art based on the collective teachings of Eggenberger et al., Speck et al., Onishi, Hiraoka, Siegrist et al. and Silvey. Note that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations, *Ex parte Masham*, 2 USPQ2d 1647.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Mackey whose telephone number is 571-272-1135. The examiner can normally be reached on M-F, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


James Mackey
Primary Examiner
Art Unit 1722

jpm
September 19, 2005

9/19/05